

In the Claims

Please cancel claims 6-10 and add new claims 11-21, all as shown below. This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1 – 10. (Canceled)

11. (New) A system for debugging in more than one programming language, comprising:

a multi-language debugger with the capability to debug a source code file with multiple, nested, compiled and interpreted languages;

a script engine interface, wherein a script engine communicates with the debugger through the script engine interface;

a debuggable frame object, wherein the script engine uses a debuggable frame object to retrieve script context for a supported language;

an interface to a messaging environment, wherein the interface is implemented by a runtime messaging environment that controls a running state of the script engine;

a debug commands interface; and

a script debug controller.

12. (New) The system of claim 11, wherein the multi-language debugger is extensible and a user can add language definitions to support additional languages.

13. (New) The system of claim 11, wherein the debugger uses JAVA™ Debugging Interface (JDI).

14. (New) The system of claim 11, wherein if more than one language appears on a stack, a user can see a debuggable frame for each language and the user can inspect variables for each language.

15. (New) The system of claim 11, further comprising: a proxy, wherein the proxy is used between the executing code being debugged and the debugger;
16. (New) The system of claim 15, wherein the script engine interface can be used by the debugger to communicate metadata to the proxy.
17. (New) The system of claim 11, wherein the debugger interacts with the runtime messaging environment.
18. (New) The system of claim 17, wherein debugging is performed on a server side of the runtime messaging environment.
19. (New) The system of claim 18, wherein the runtime messaging environment interprets language interactions and performs debugging in JAVA™ Platform Debugging Architecture (JPDA).
20. (New) The system of claim 11, wherein the script engine has a static constructor load the script debug controller.
21. (New) The system of claim 20, wherein the script debug controller receives information from the script engine, comprising:
 - a) language extensions for each language;
 - b) classes that implement the script engine;
 - c) information on optional capabilities for each language; and
 - d) language name.